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FOREST SERVICE ATLAS,
STATISTICS,

1907.

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FOREST SERVICE
Gunnison National Forest
Gunnison, Colorado.
OCT 2 1909
RECEIVED
Answered.....

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
GIFFORD PINCHOT, FORESTER

FOREST SERVICE ATLAS

EXTRACTS FROM THE STATISTICAL VOLUME
OF THE FOREST ATLAS FOR
THE FISCAL YEAR
1907



COMPILED BY THE OFFICE OF GEOGRAPHY

WASHINGTON
ENGRAVED AND PRINTED BY THE U. S. GEOLOGICAL SURVEY
1908

LETTER OF TRANSMITTAL

U. S. DEPARTMENT OF AGRICULTURE,

FOREST SERVICE,

Washington, D. C., June 15, 1908.

SIR: I have the honor to transmit herewith extracts selected from the statistical volume of the Forest Atlas for 1907, and to recommend their publication.

Respectfully,

GIFFORD PINCHOT,

Forester.

HON. JAMES WILSON,

Secretary of Agriculture.

EXPLANATORY

The following pages show selected extracts from the statistical volume of the Forest Atlas for the fiscal year ended June 30, 1907. A manuscript volume is compiled each year by the Office of Geography, and the facts set forth constitute an official reference record of the work of the Forest Service for the fiscal year. In order to make the Atlas more valuable as a work of reference, there is included, in addition to the Forest Service reports, information on various other subjects related to forestry, which is taken from official and authentic sources.

Since many members of the Forest Service have no opportunity to consult the original volumes, these pages are reproduced for their information and convenience. On the diagrammatic maps each National Forest is represented by a square, proportionate to its area, which is placed as near as possible to the actual geographic location of the Forest. The exact location of the squares, however, is of only secondary importance, because the principal purpose of the diagrams is to indicate the proportionate areas, conditions, and transactions upon the Forests in a direct and graphic manner.

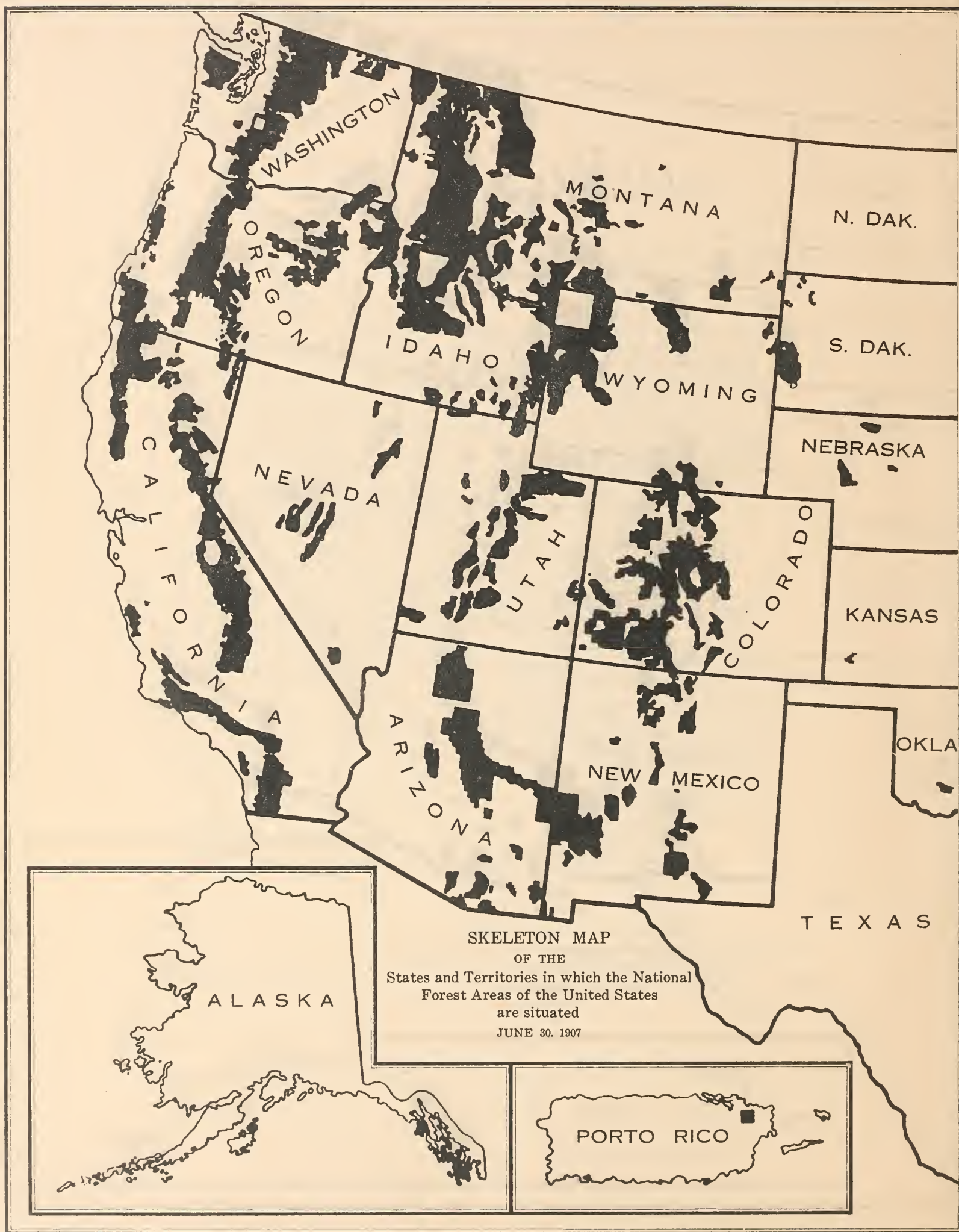
The information presented is thought to be of interest not only to the members of the Service but to the users of the National Forests as well. This Atlas is not designed for general circulation, but a limited number of copies will be reserved for distribution among libraries, educational institutions, and associations devoted to the interests of forestry or to the conservation of other natural resources.

FRED G. PLUMMER,

Geographer.

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DISPOSAL OF LANDS IN THE SIXTEEN WESTERN STATES.

June 30, 1907.

Total area
of land surface
acres.

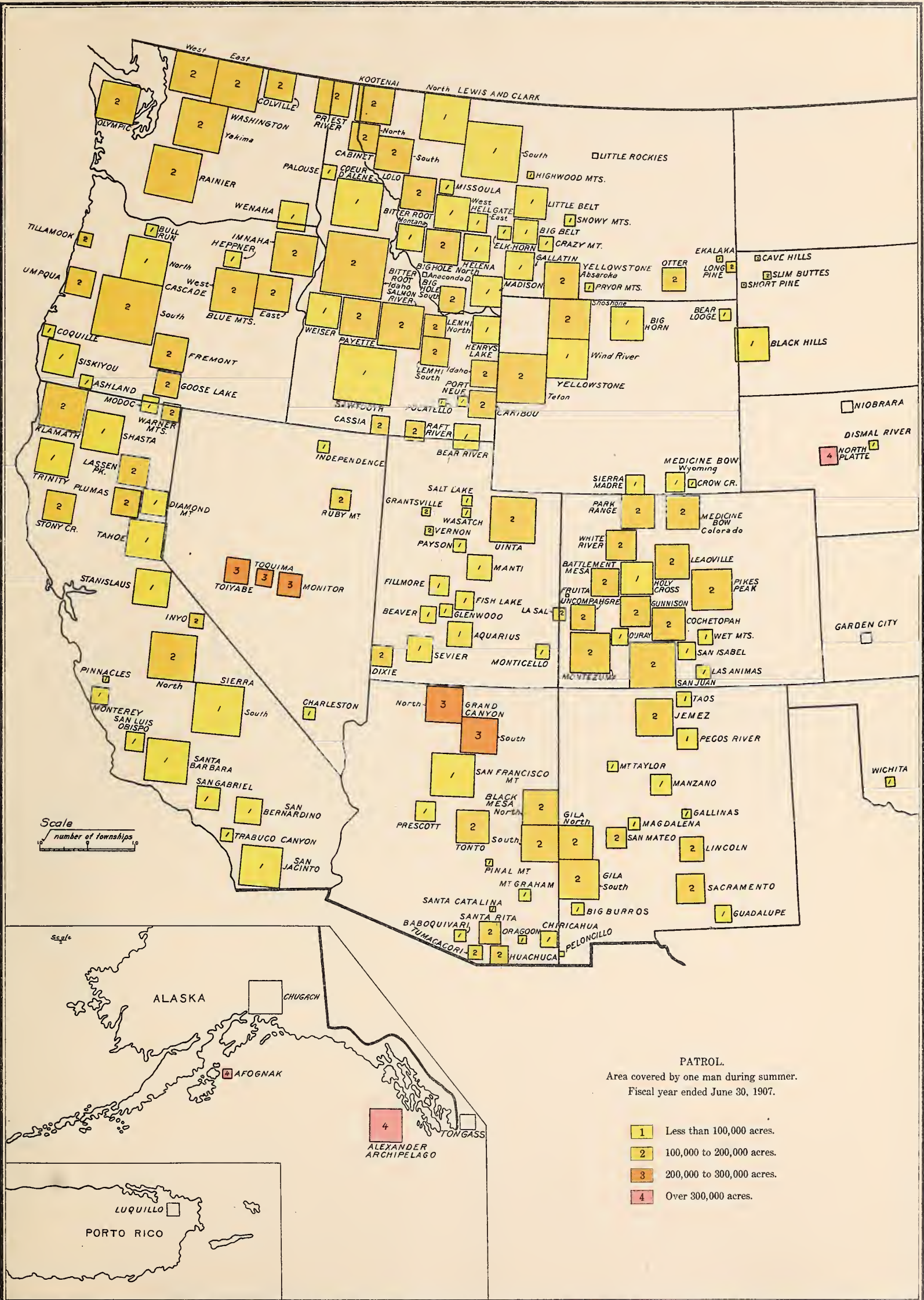
Scale: One square inch to 36,000,000 acres.

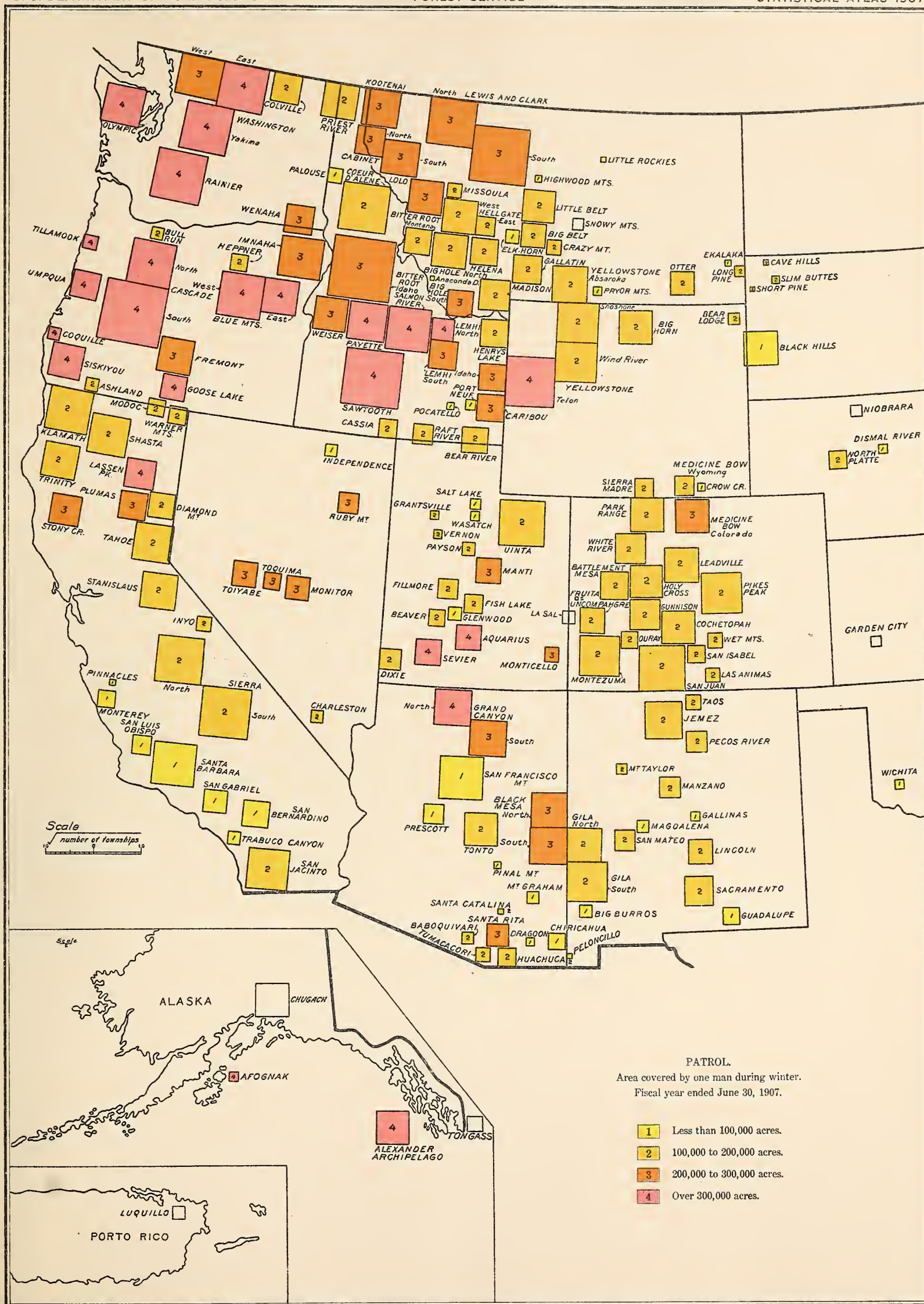
State.	
Arizona	72,857,600
California	99,898,880
Colorado	66,341,120
Idaho	53,618,560
Kansas	52,335,360
Montana	93,296,640
Nebraska	49,157,120
Nevada	70,285,440
New Mexico	78,401,920
North Dakota	44,917,120
Oklahoma	44,424,960
Oregon	61,188,480
South Dakota	49,195,520
Utah	52,597,760
Washington	42,775,040
Wyoming	62,460,160
Total	993,751,680

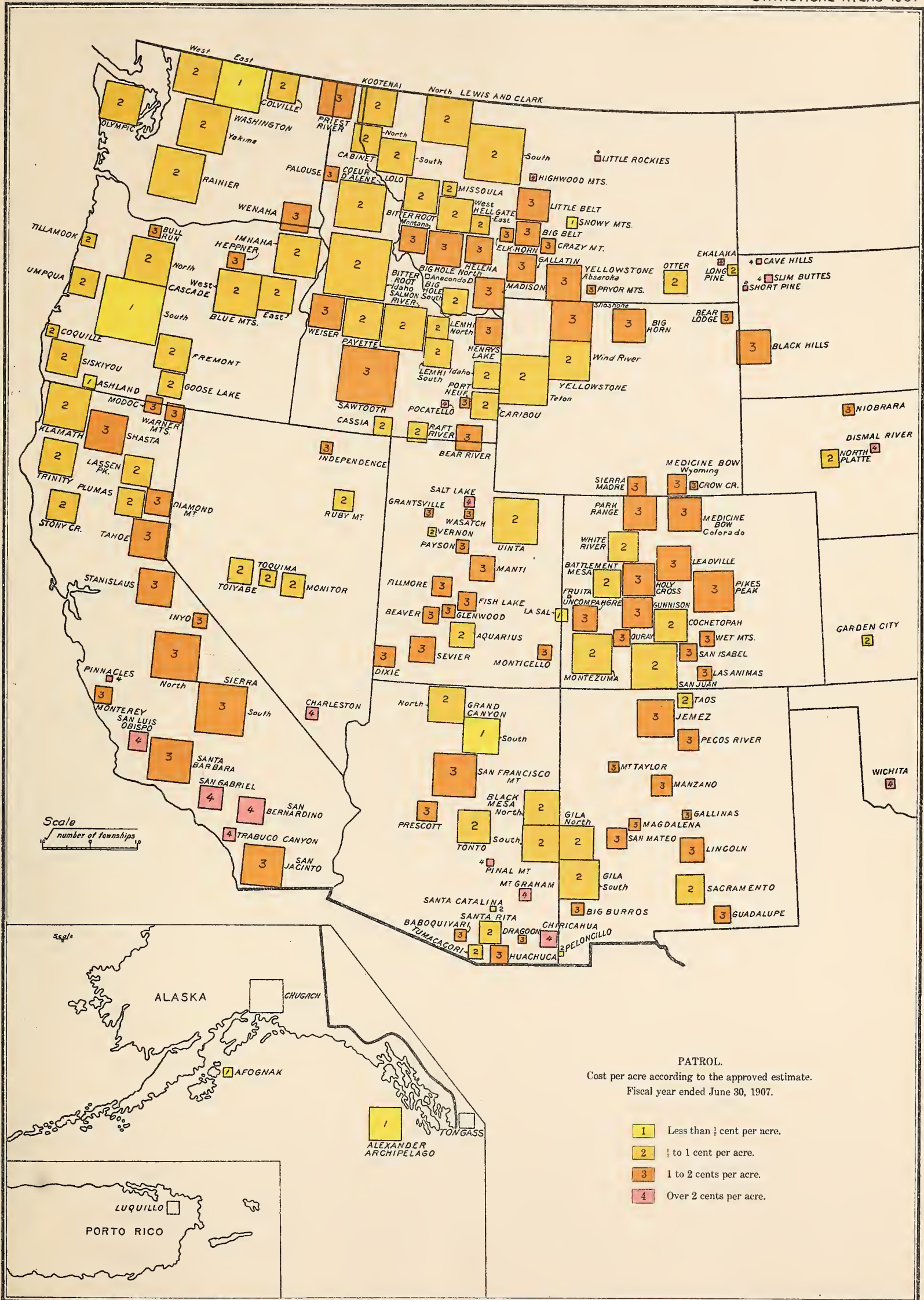
Explanation.

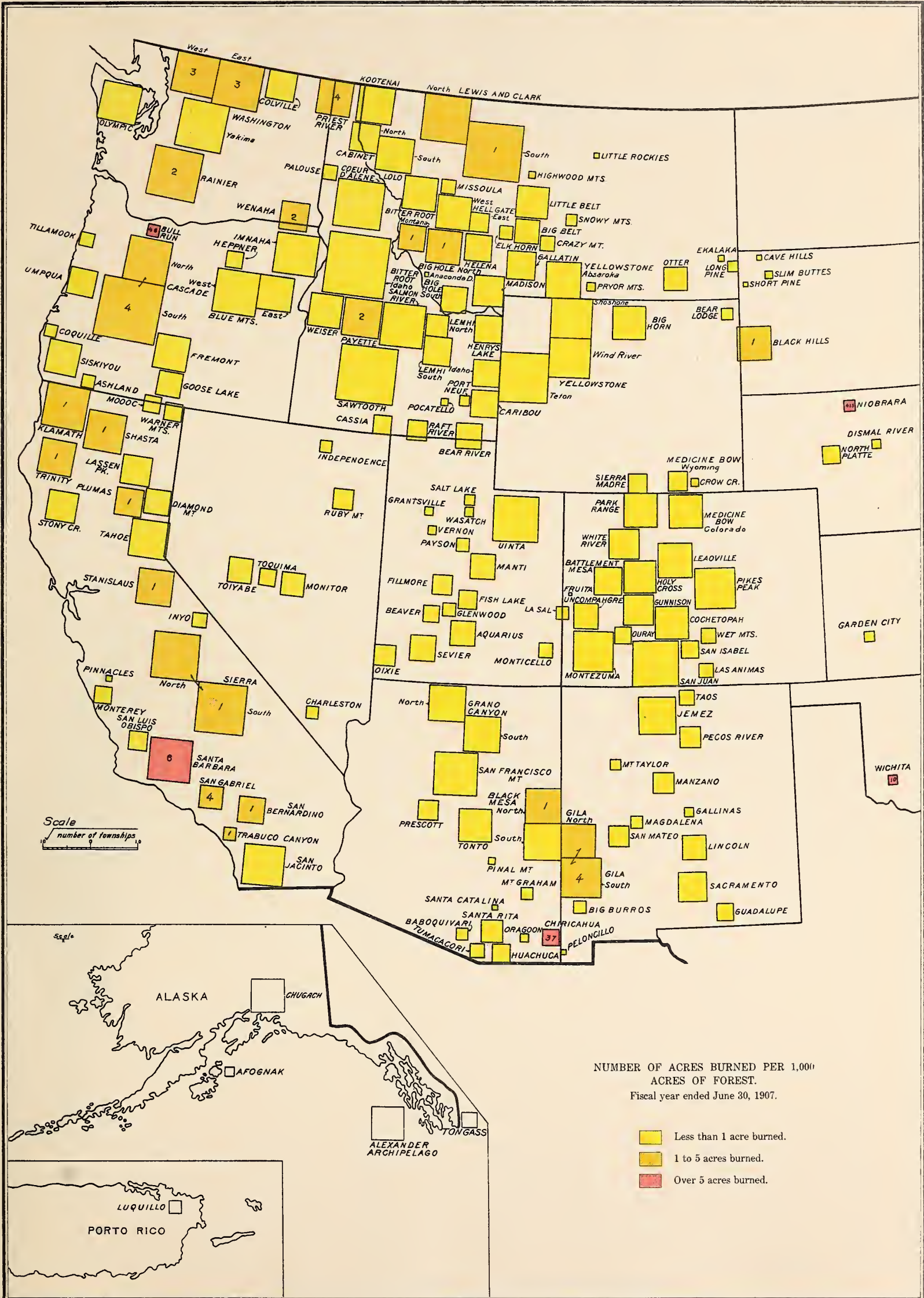
The above diagram is approximately correct.

The National Forest areas do not include alienated land,
as exact figures for all forests were not available.









COMMUNICATION.

NUMBER OF MILES CONSTRUCTED SINCE THE CREATION OF THE FORESTS, TO JUNE 30, 1907.

State and Forest.	Roads.			Railways.		Trails.		Tele-graph lines.	Telephone lines.	
	County.	Private.	Govern-ment.	Standard gauge.	Narrow gauge or tram.	Private.	Govern-ment.		Private or corporate.	Govern-ment.
ALASKA:										
Afognak										
Alexander Archipelago			3		5	7			7	
Chugach				15			27	27		
Tongass		20 to 35								
ARIZONA:										
Baboquivari										
Black Mesa (N)									15	
Black Mesa (S)										
Chiricahua	4	14				35	15		6	5
Dragoon										
Grand Canyon (N)			40				12½			
Grand Canyon (S)		10	5	25		14		25	6	
Huachuca										
Mount Graham							10		4	
Pinal Mountains	7	2				3				
Prescott	25	65		41	5½	30		70	153½	
San Francisco Mountains	50	10		35		15			20	
Santa Catalina	2						15			
Santa Rita		3		4		3		4	12	
Tonto	10	4½					125			
Tumacacori										
CALIFORNIA:										
Diamond Mountain				3	½		12		1	
Inyo					¾					
Klamath	15	10				40	250		32	
Lassen Peak	5	4				3			6	
Modoc										
Monterey							9½			
Pinnacles							3			
Plumas	3	70		65		45	27		66	
San Benito										
San Bernardino		40				25	51		40	
San Gabriel		8				50	50		30	70
San Jacinto	7	16					25		30	
San Luis Obispo			1				30			
Santa Barbara		100				50	1000		10	6
Shasta	3	10			2	25	27	100	44	66
Sierra (N)		83	16	2	8		30		45	
Sierra (S)	15	40	6			55	65		52	38
Sierra (E)		15				1			10	
Stanislaus		7½		7½	1	9	8		51	8½
Stony Creek										
Tahoe		1								1½
Trabuco Canyon							12			
Trinity		10				20	75		27	
Warner Mountains	8	4							20	
COLORADO:										
Battlement Mesa	14	60	63	4½			180	4½	15	
Cochetopa		3½							2½	
Fruita										
Gunnison	5	15	7			13	72	30	8	
Holy Cross	20	35			1				6	
La Sal		6							1	

^aTemporary logging railroad.^bOld trails, 200; new trails, 50.

COMMUNICATION—Continued.

NUMBER OF MILES CONSTRUCTED SINCE THE CREATION OF THE FORESTS, TO JUNE 30, 1907.

State and Forest.	Roads.			Railways.		Trails.		Tele- graph lines.	Telephone lines.	
	County.	Private.	Govern- ment.	Standard gauge.	Narrow gauge or tram.	Private.	Govern- ment.		Private or corporate.	Govern- ment.
COLORADO—Continued:										
Las Animas.....										
Leadville.....										
Medicine Bow (Colo. Div.).....		6					25			
Montezuma.....	43	21½			2½	9½	1½		19	
Ouray.....										
Park Range.....	16	35					5		15	
Pikes Peak.....	85½	133	14	41	6	25	35	48	85	
San Isabel.....		2½	5			9	69			
San Juan.....	34	47¾				8	9		27	
Uncompahgre.....		13								
Wet Mountains.....	27	10				23	48		1½	
White River.....	60	100				250	50		10	
IDAHO:										
Bear River.....										
Big Hole (S).....										
Bitter Root.....		30				50	300		56	
Cabinet (S).....		5				10				
Caribou.....										
Cassia.....		50	10							
Coeur d'Alene.....										
Henrys Lake.....				18						
Kootenai.....							24			
Lemhi (N).....										
Lemhi (S).....									12	
Palouse.....										
Payette.....									71	
Pocatello.....		9					3			
Port Neuf.....		5								
Priest River.....	25	55				150	15			
Raft River.....		36								
Salmon River.....										
Sawtooth.....		2							20	
Weiser.....	2	9		3		5	1	3	6	
Yellowstone (Idaho Div.).....										
KANSAS:										
Garden City.....										
MINNESOTA:										
Minnesota.....				12						
MONTANA:										
Big Belt.....		1		5						
Big Hole (Ana. Div.).....		10			1	30	5			
Big Hole (N).....										
Big Hole (S).....										
Bitter Root (Mont. Div.).....		18					54		2	
Cabinet (N).....										
Cabinet (S) (See Idaho).....										
Crazy Mountains.....	3	16					24			
Ekalaka.....										
Elkhorn.....										
Gallatin.....										
Helena.....	25	50		8		20				
Hell Gate (E).....	7	30				50	6			14

a State road.

COMMUNICATION—Continued.

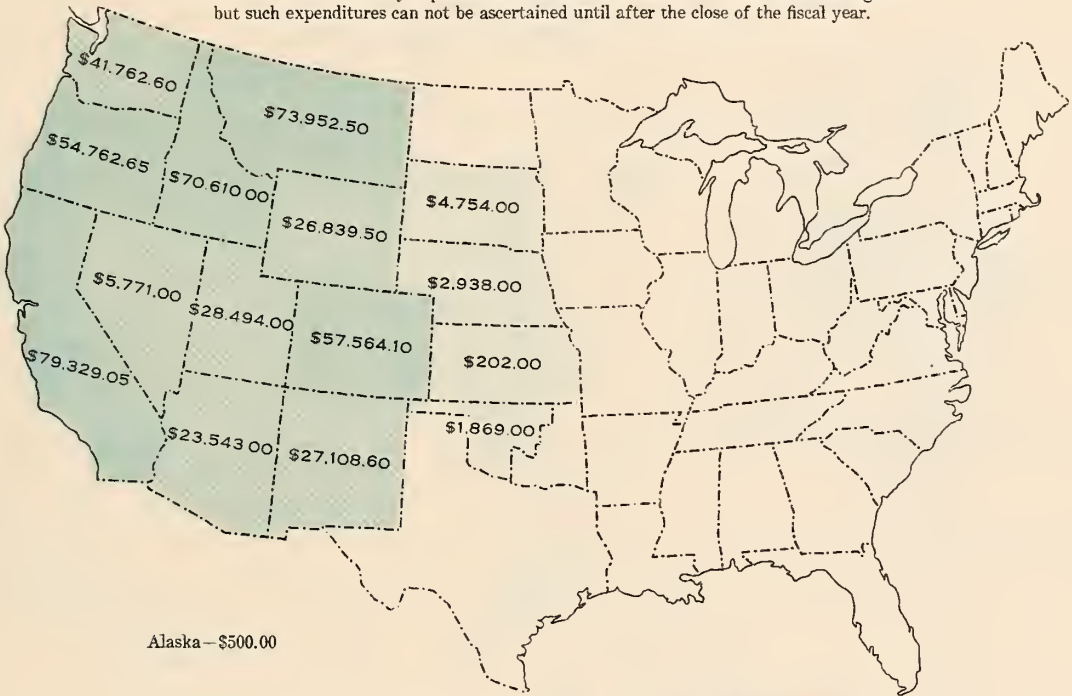
NUMBER OF MILES CONSTRUCTED SINCE THE CREATION OF THE FORESTS, TO JUNE 30, 1907.

State and Forest.	Roads.			Railways.		Trails.		Tele- graph lines.	Telephone lines.	
	County.	Private.	Govern- ment.	Standard gauge.	Narrow gauge or tram.	Private.	Govern- ment.		Private or corporate.	Govern- ment.
OREGON—Continued:										
Fremont	17	125	8			4	3		6	
Goose Lake	10	66	4		6				12	
Heppner	54	60							18	
Imnaha	7	32	$\frac{1}{2}$			65	15		4	
Siskiyou										
Tillamook		3				5				
Umpqua									9	
Wenaha	3									
SOUTH DAKOTA:										
Black Hills	100	50		35	24				115	
Cave Hills		7								
Short Pine										
Slim Buttes		2								
UTAH:										
Aquarius	12						180			
Bear River										
Beaver										
Dixie		15								
Fillmore										
Fish Lake										
Glenwood										
Grantsville										
La Sal (See Colo.)										
Manti	9	46								
Monticello										
Payson							12			
Raft River (See Idaho)										
Salt Lake									11 $\frac{1}{2}$	4
Sevier	2 $\frac{1}{2}$	3					9			20
Uinta	10		20				747			20
Vernon										
Wasatch									$\frac{3}{4}$	
WASHINGTON:										
Colville	35						5			44
Olympic			4			25	70			
Priest River										
Rainier		3	8			75	48		2 $\frac{1}{2}$	7
Washington (Chelan Div.)	50	50				50	50		30	54
Washington (W.)	5 $\frac{1}{2}$	6	3	$\frac{1}{2}$	10	300	10	$\frac{1}{2}$	14	
Washington (Wenat. Div.)				11						
Wenaha (See Oregon)										
WYOMING:										
Bear Lodge										7 $\frac{1}{2}$
Big Horn	83	57	55				755		45	52
Black Hills (See S. Dakota)										
Caribou										
Crow Creek										
Medicine Bow (Wyo. Div.)		3					8		13	
Sierra Madre										
Uinta (See Utah)										
Yellowstone (Shos. Div.) ..	50		26				250		12	5
Yellowstone (Teton Div.) ..			12				200		12	
Yellowstone (W. R. Div.) ..		10					200			

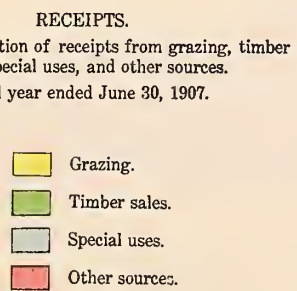
PERMANENT IMPROVEMENT WORK ON NATIONAL FORESTS
AMOUNTS ALLOTTED—BY STATES.

Fiscal year 1907-08.

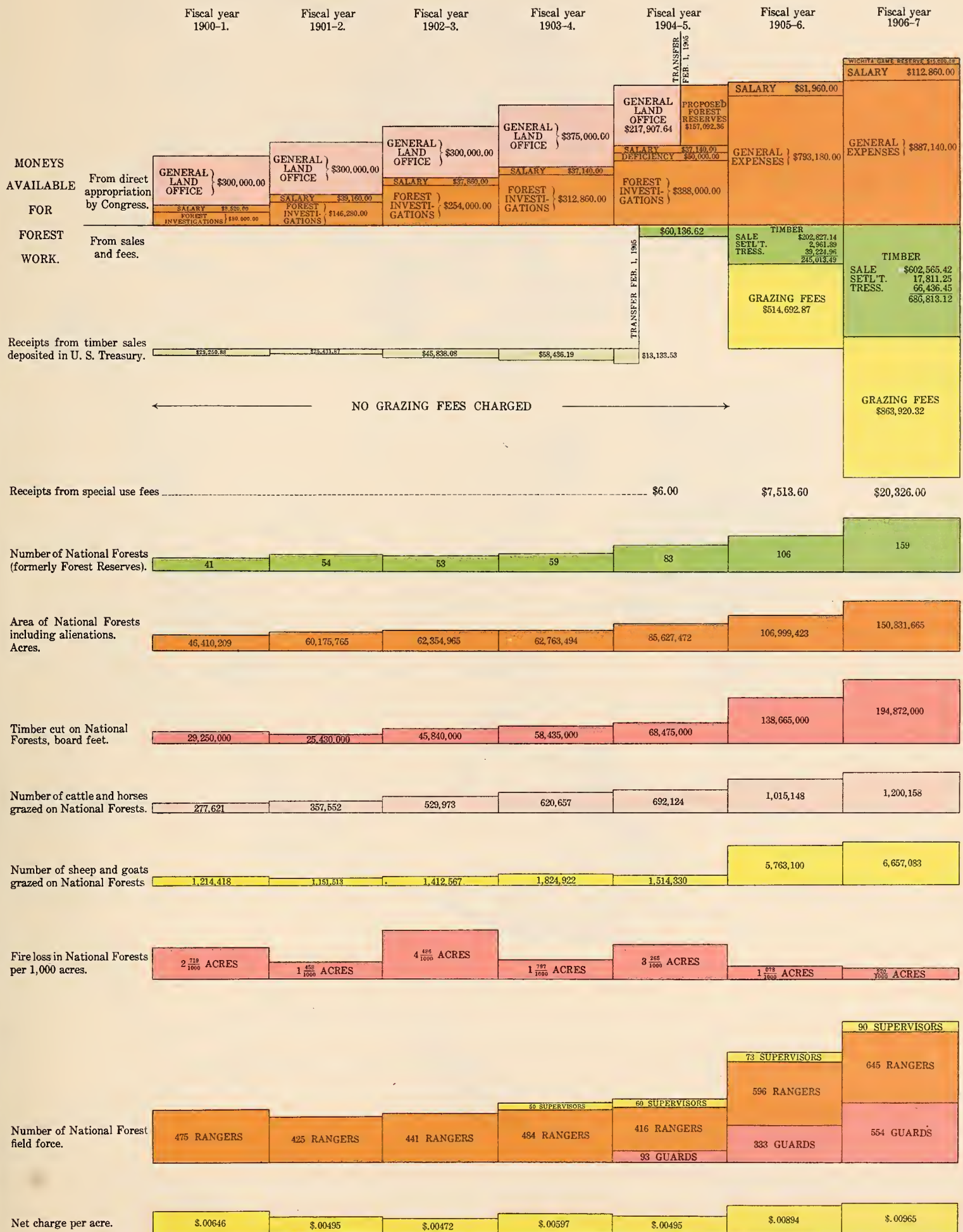
NOTE: The amount actually expended in each State will differ from these allotment figures, but such expenditures can not be ascertained until after the close of the fiscal year.

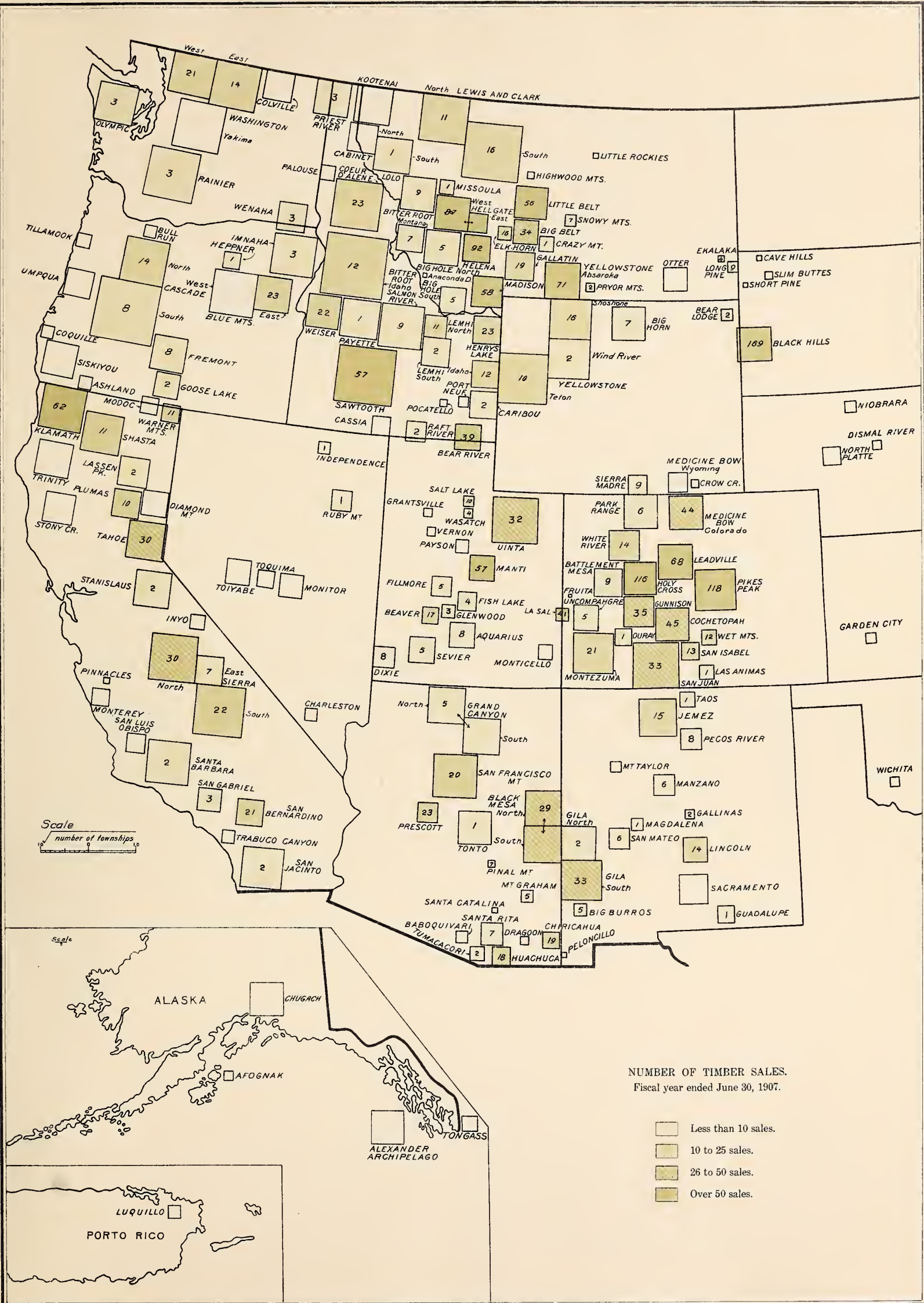


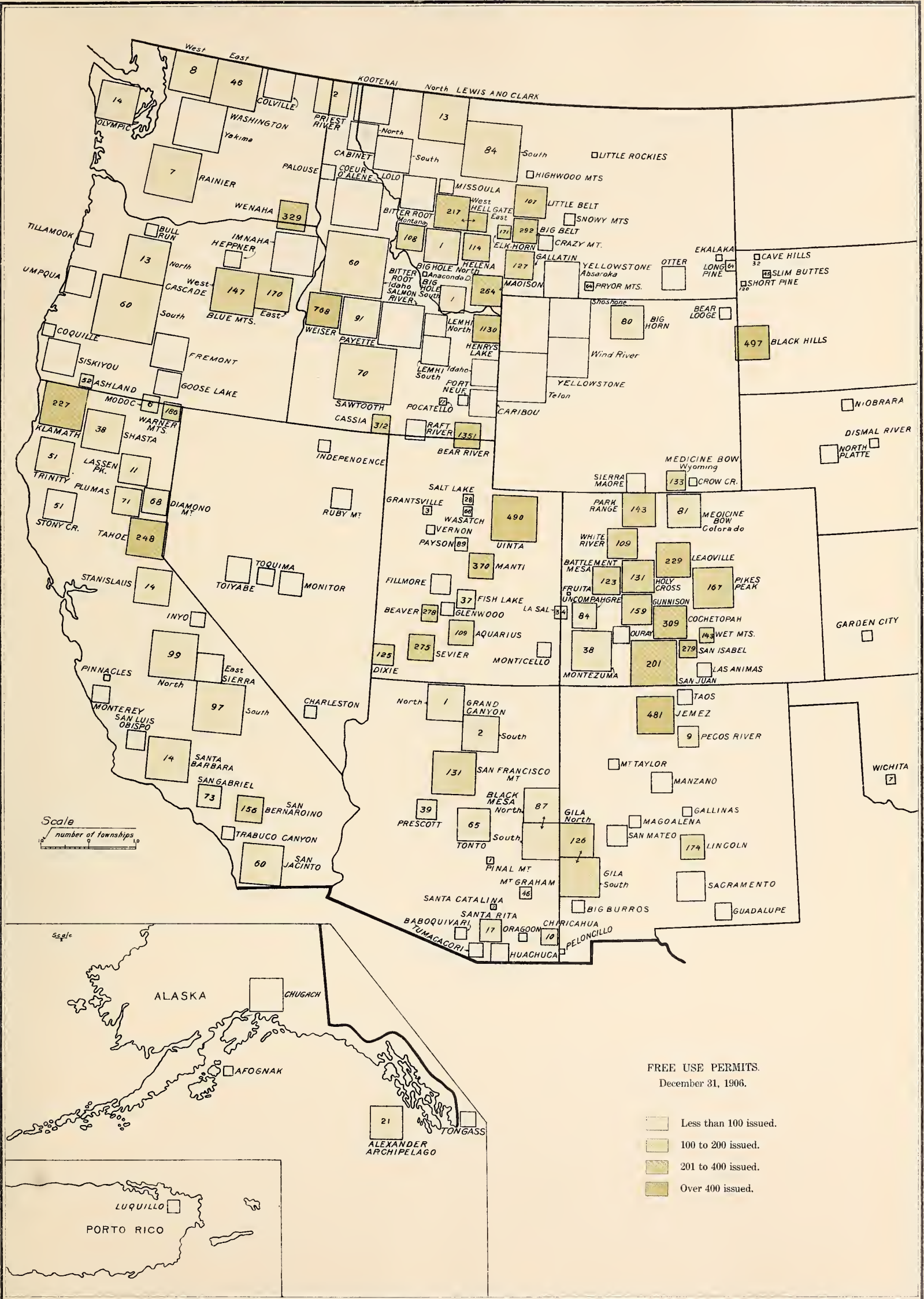
- Less than \$5,000 allotted.
- \$5,000 to \$50,000 allotted.
- Over \$50,000 allotted.

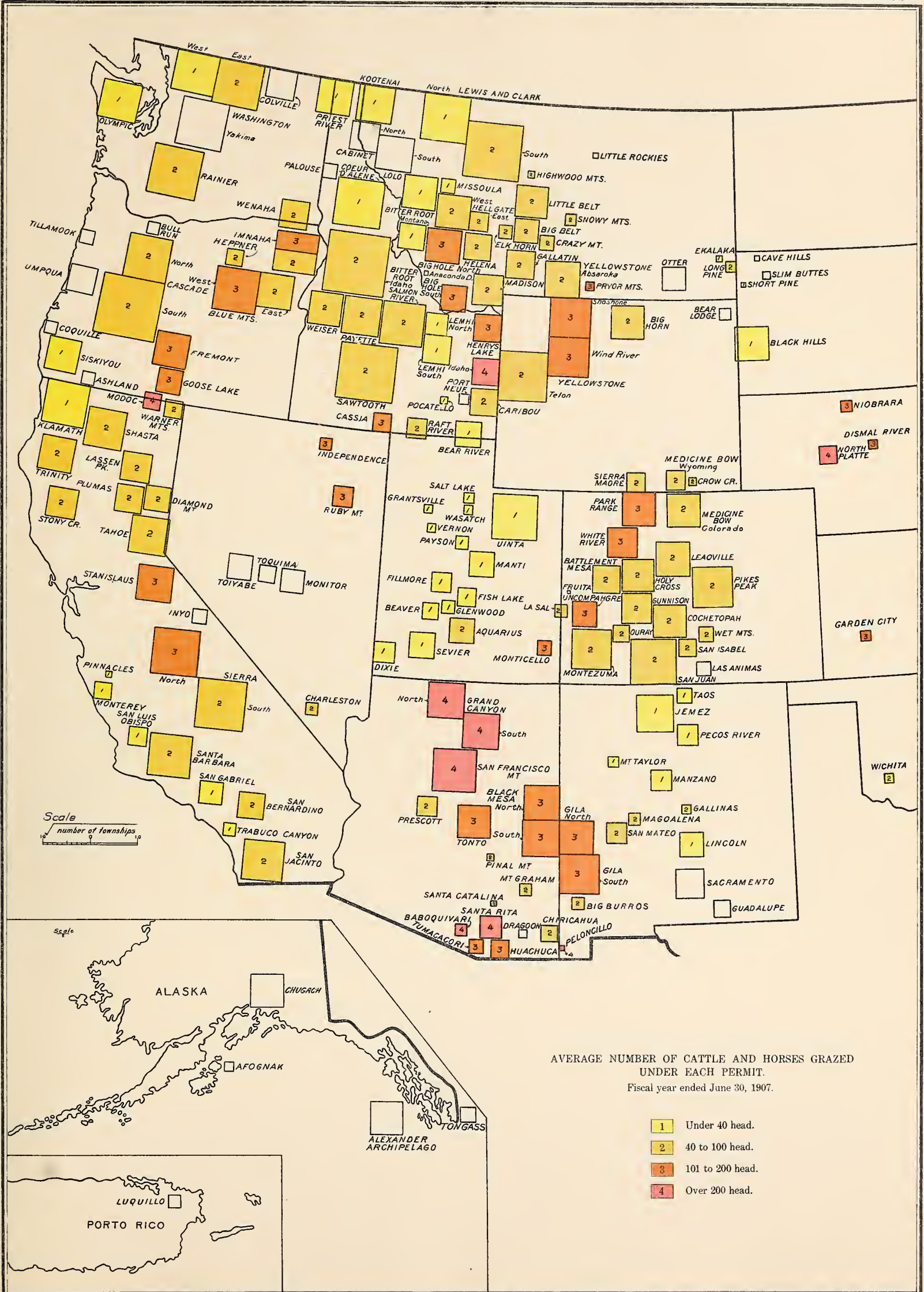


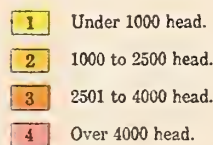
GROWTH

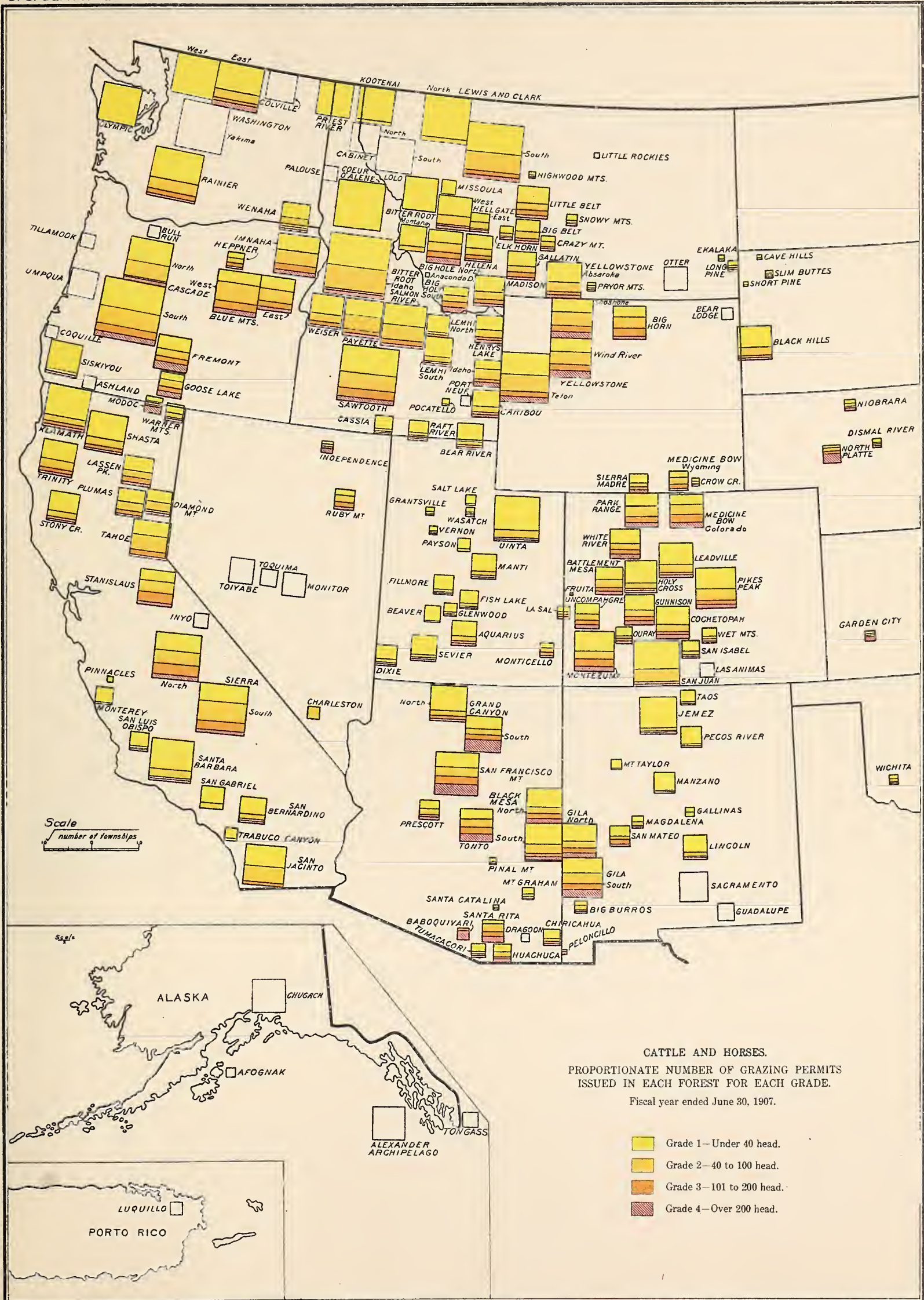


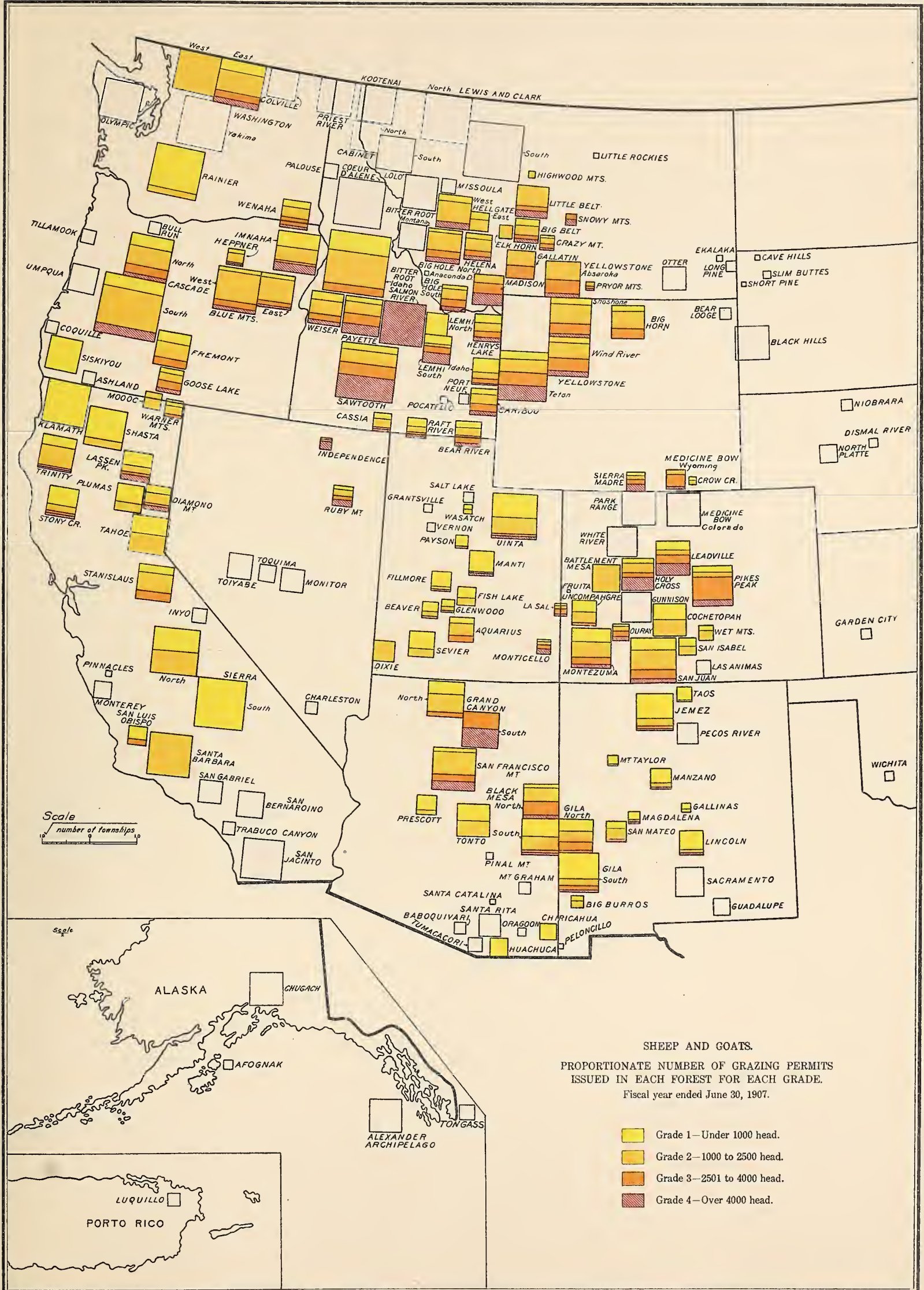


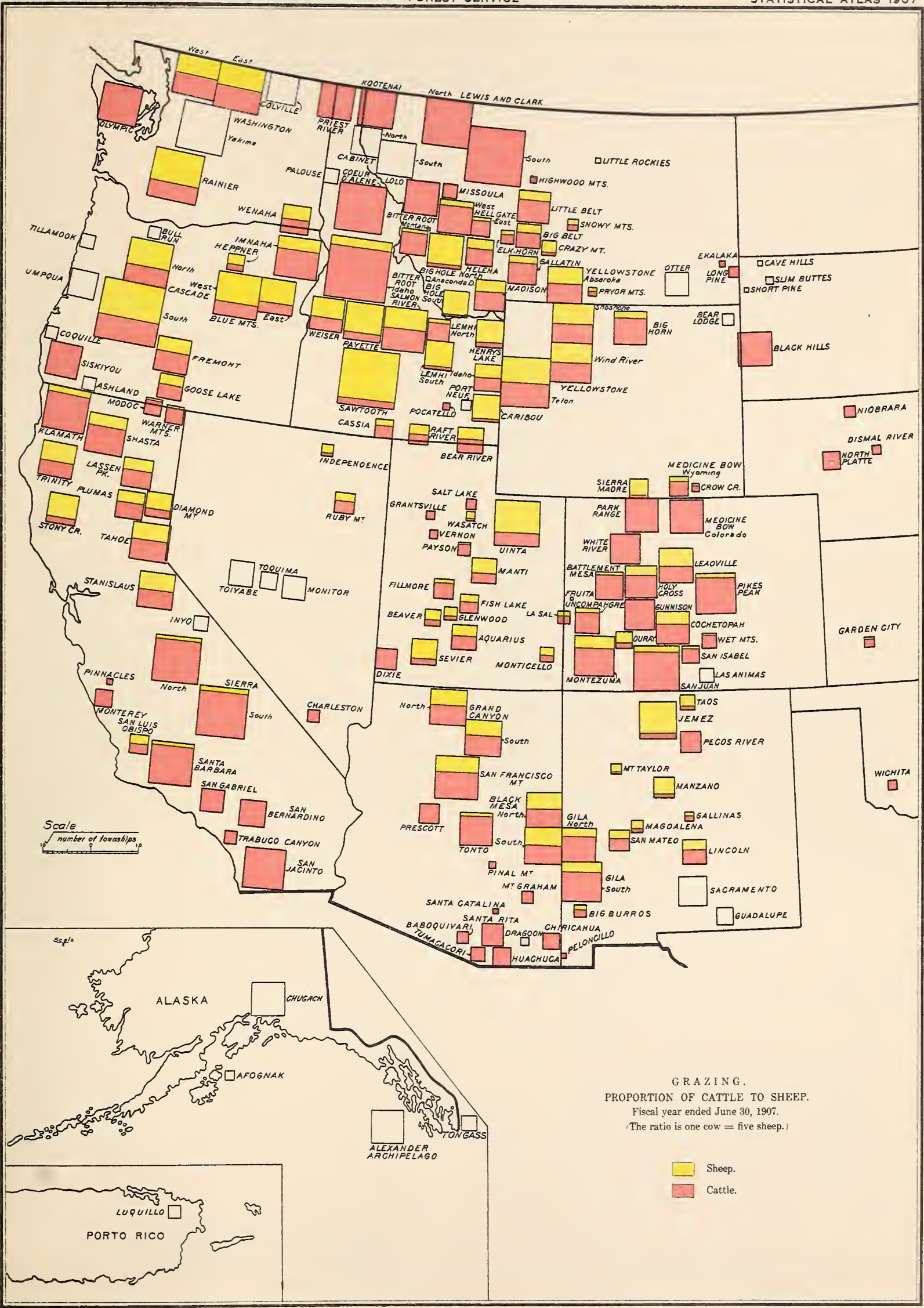












USE OF NATIONAL FOREST LANDS AND RESOURCES.

KIND AND NUMBER OF PERMITS ISSUED SINCE CREATION OF THE FORESTS TO CLOSE OF
FISCAL YEAR ENDED JUNE 30, 1907.

SPECIAL USE.

Kind of permit.	Number.		Kind of permit.	Number.	
	Charge.	Free.		Charge.	Free.
Agricultural.....	245	21	Observatory.....		1
Agricultural and pasture.....	9		Office.....		1
Apiary.....	52		Park.....	1	
Assay office.....	1		Pasture.....	396	
Banking ground.....		1	Poultry ranch.....	1	
Barn.....	6	4	Powder house.....	1	
Bath house.....	1		Power plant.....	19	
Boat.....		4	Quartz mill.....		1
Brick manufacture.....	2		Railroad.....	7	1
Building.....		5	Railroad (logging).....		1
Cabin.....	35	18	Railroad siding.....		1
Camp.....	13	5	Railroad station.....		1
Cattle feed yard.....	1		Reservoir.....	44	118
Cemetery.....		2	Residence.....	123	5
Charcoal pit.....		1	Resort.....	20	2
Church.....		1	Restaurant.....		1
City reservoir and conduit.....		1	Road.....	19	202
City watershed.....		1	Sale of barbed wire.....	1	
Clearing river.....		1	Sale of sand and stone.....	7	
Conduit.....	89	235	Sanitarium.....	1	
Corral.....	4	55	Saw mill.....	11	426
Culvert.....		1	School.....	2	11
Dairy.....	2		Shed.....	1	
Dam.....	2		Skidway.....		1
Dipping vat.....	2		Slaughter house.....	7	1
Drain, pipe line, and power house.....		1	Smelter site.....	2	
Drift fence.....		140	Stable.....	1	
Dump ground.....		2	Station ground.....	4	
Engine.....		1	Stage station.....	2	
Experiment station.....		1	Steam boat.....		8
Ferry landing.....		1	Steam thresher.....		3
Fish hatchery.....	2		Store.....	24	7
Fishing site.....	5		Telephone.....	1	100
Fox ranch.....	2		Trail.....		50
Hay sale.....	53		Tramway.....	8	5
Hotel.....	53		Tramway (aerial).....	1	
Hunting permit.....		3	Transmission line.....	12	
Ice pond.....	1		Trout pond.....	1	
Kiln.....	3		Tunnel.....		1
Laundry.....		1	Use of creek.....	1	
Lime kiln.....	2		Well.....		1
Livery stable.....	2		Well, windmill, and tank.....		9
Log chute.....		5	Wharf.....	2	
Logging pond.....	1		Windmill.....	1	1
Lumber camp.....	1		Wood yard.....	1	
Lumber yard.....		1			
			Total.....	1311	1471

KIND AND NUMBER OF PERMITS AND NUMBER OF TIMBER SALES.

(Recapitulated by years.)

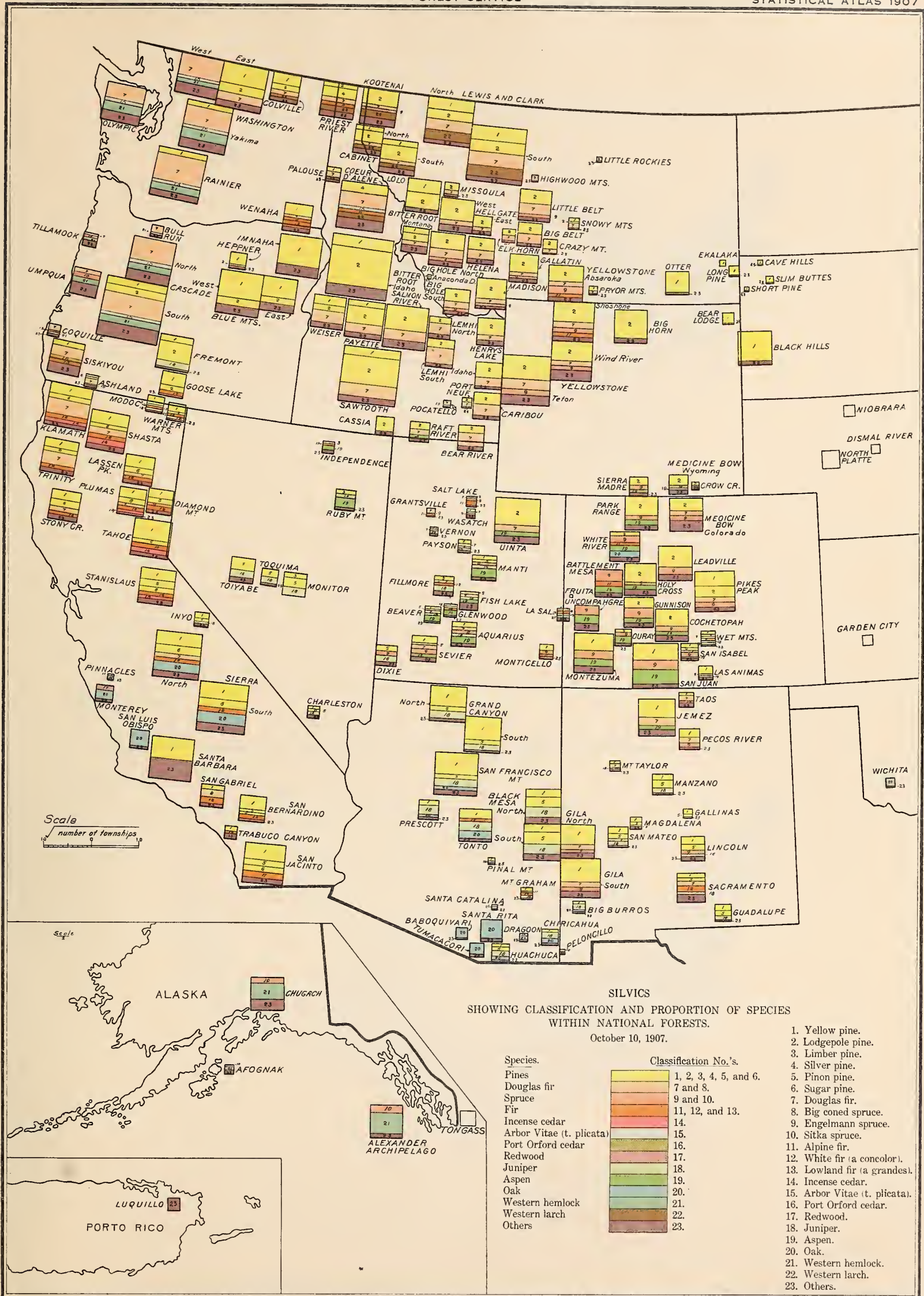
Year issued.	Special use.	Grazing.	Crossing forest with stock.	Free timber.	Total permits.	Timber sales.
Fiscal years 1891 to 1898 inclusive.....						
Fiscal year 1899.....						6
Fiscal year 1900.....						12
Fiscal year 1901.....		2,317		283	2,600	31
Fiscal year 1902.....		3,126		1,289	4,415	77
Fiscal year 1903.....		4,554	8	2,135	6,697	156
Fiscal year 1904.....		6,733	277	3,239	10,249	377
Fiscal year 1905.....	298	7,981	346	3,363	11,988	411
Fiscal year 1906.....	604	16,593	503	8,097	25,797	1,023
Fiscal year 1907.....	1,880	21,788	1,449	17,399	42,516	1,508
Total.....	2,782	63,092	2,583	35,805	104,262	3,601

NOTES—Canal, ditch, flume, pipe line, and other water transmission permits included with those for conduits.

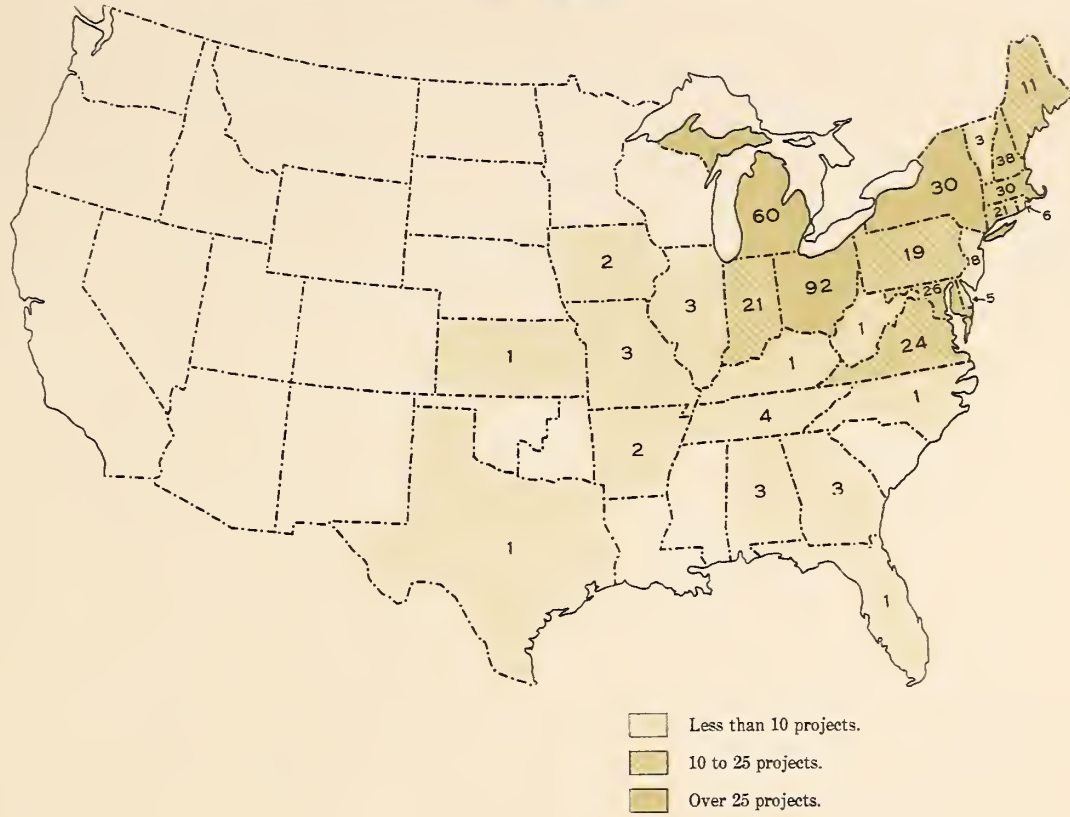
Special use pasture permits not included under "Grazing."

Two hundred and twenty-three special use permits issued prior to February 1, 1905, included in number reported for fiscal year 1905.

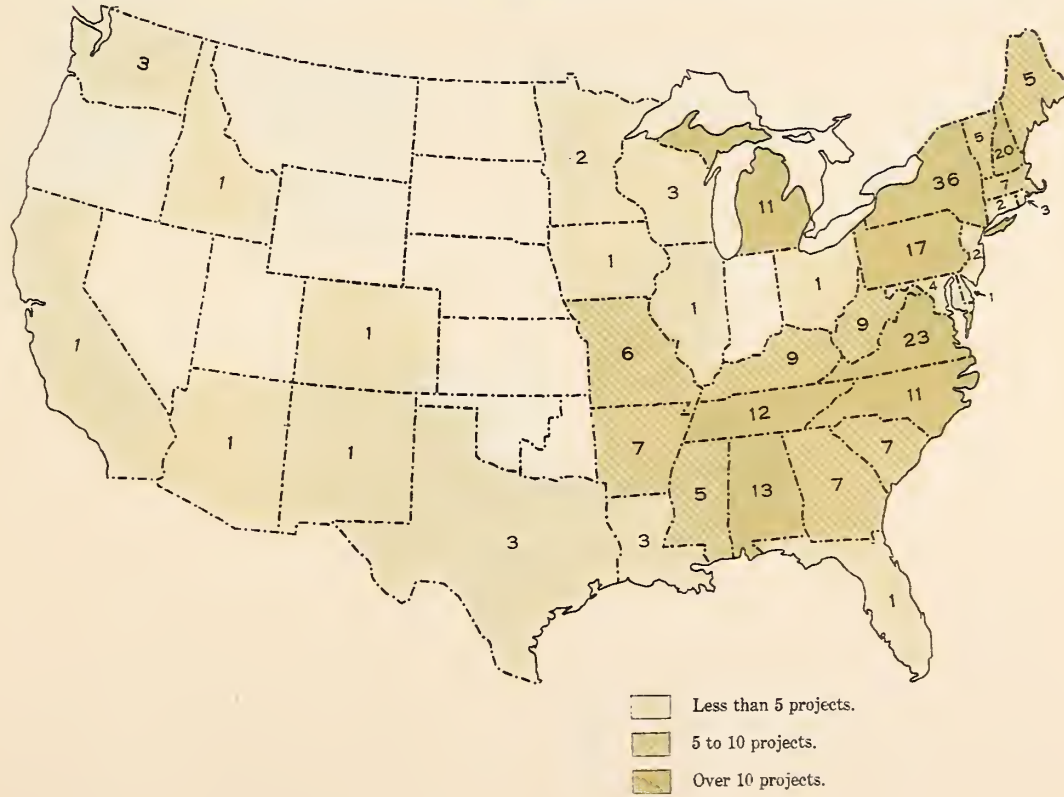
Permits are not required for "prospecting for minerals, transient camping, hunting, fishing, and surveying for lawful projects." (P. 43, Reg. 6 of The Use Book for 1907).



NUMBER OF WOODLOTS, BY STATES, ON WHICH WORK HAS BEEN DONE BY COOPERATION.
December 20, 1907.



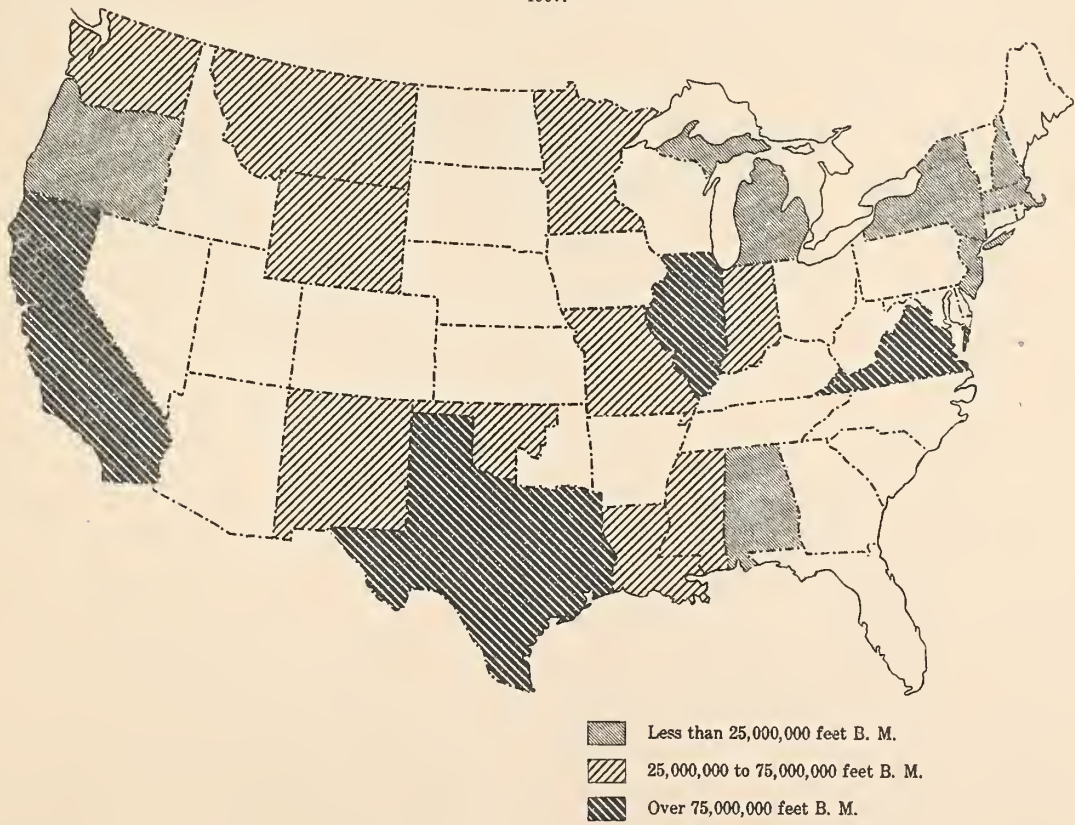
NUMBER OF TIMBER TRACTS, BY STATES, ON WHICH WORK HAS BEEN DONE BY COOPERATION.
December 31, 1907.



TIMBER TESTS BY THE FOREST SERVICE.
December 31, 1907.



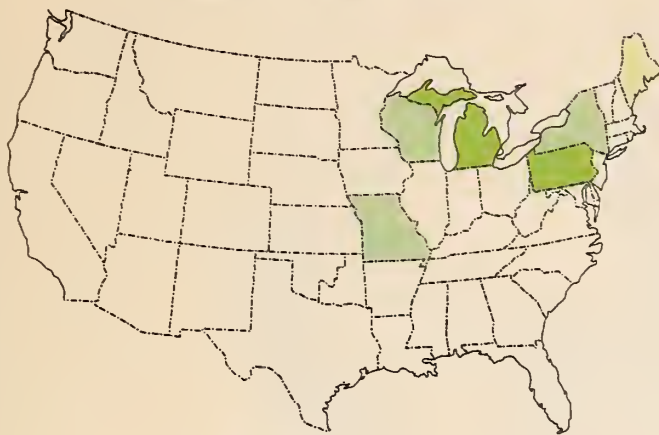
OUTPUT OF TREATING PLANTS IN THE UNITED STATES—BY STATES.
1907.



PRODUCTS

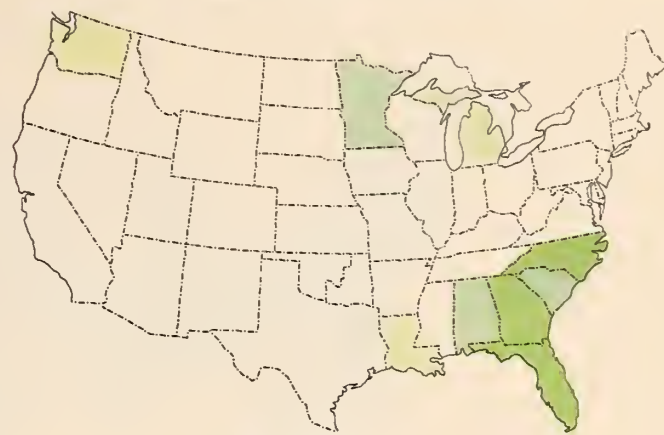
December 31, 1906.

WOOD USED FOR HARDWOOD DISTILLATION.



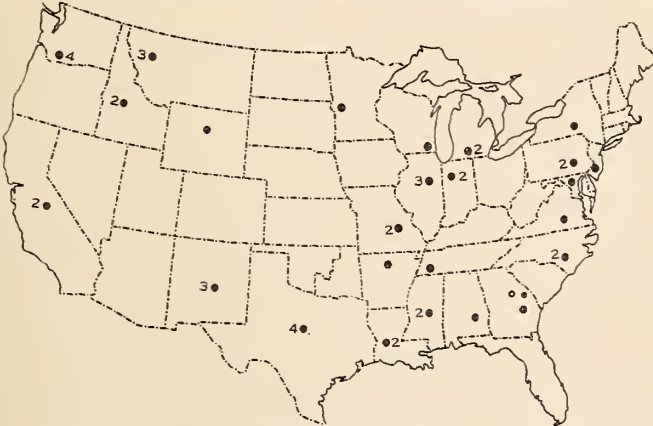
- None.
- Less than 40,000 cords.
- 40,000 to 100,000 cords.
- Over 300,000 cords.

WOOD USED FOR SOFTWOOD DISTILLATION.



- None.
- Less than 1,000 cords.
- 1,000 to 10,000 cords.
- Over 10,000 cords.

LOCATION OF WOOD PRESERVATION EXPERIMENTS.



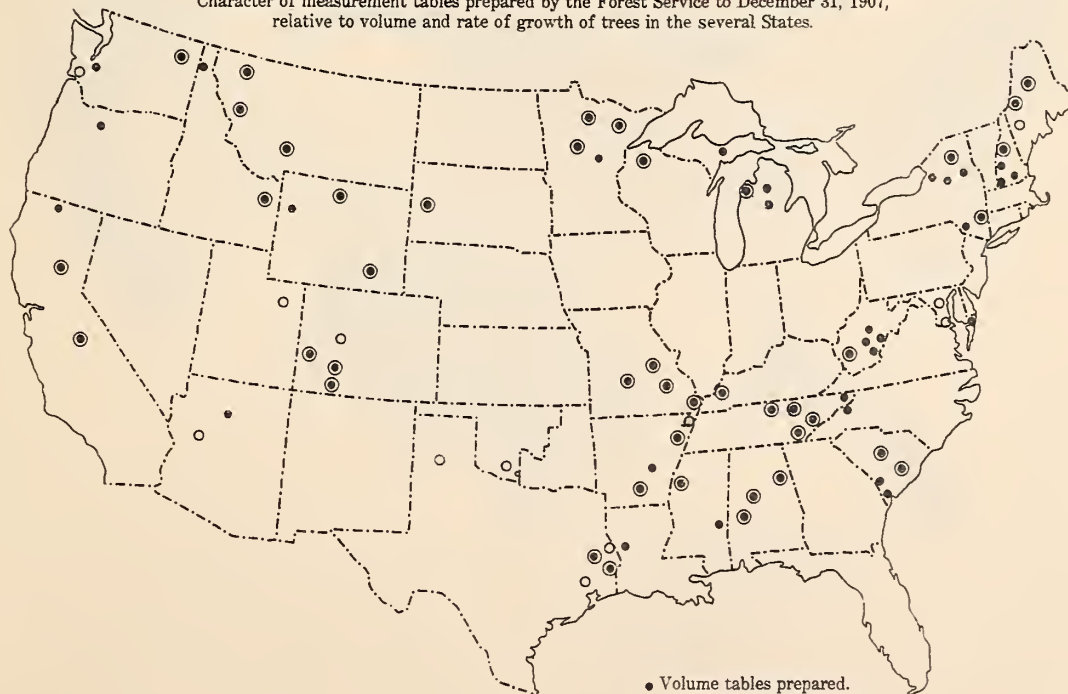
Numbers indicate more than one experiment.

LOCATION OF WOOD TREATING PLANTS.



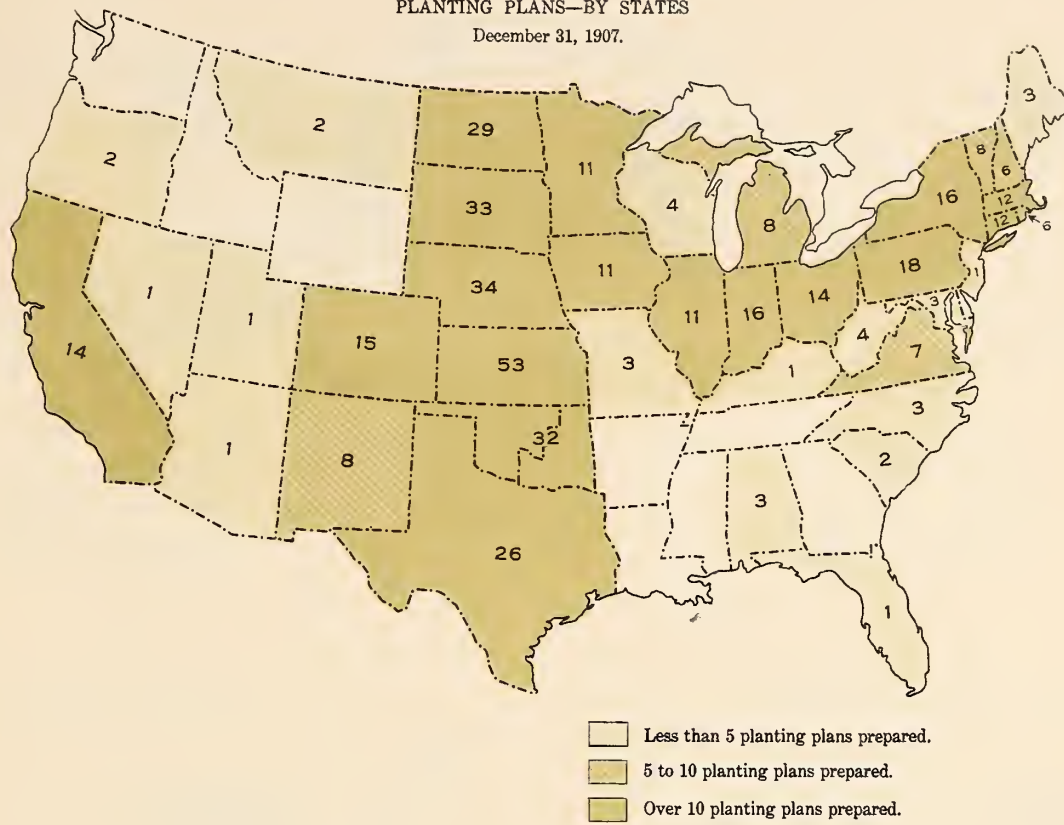
MEASUREMENT TABLES.

Character of measurement tables prepared by the Forest Service to December 31, 1907,
relative to volume and rate of growth of trees in the several States.

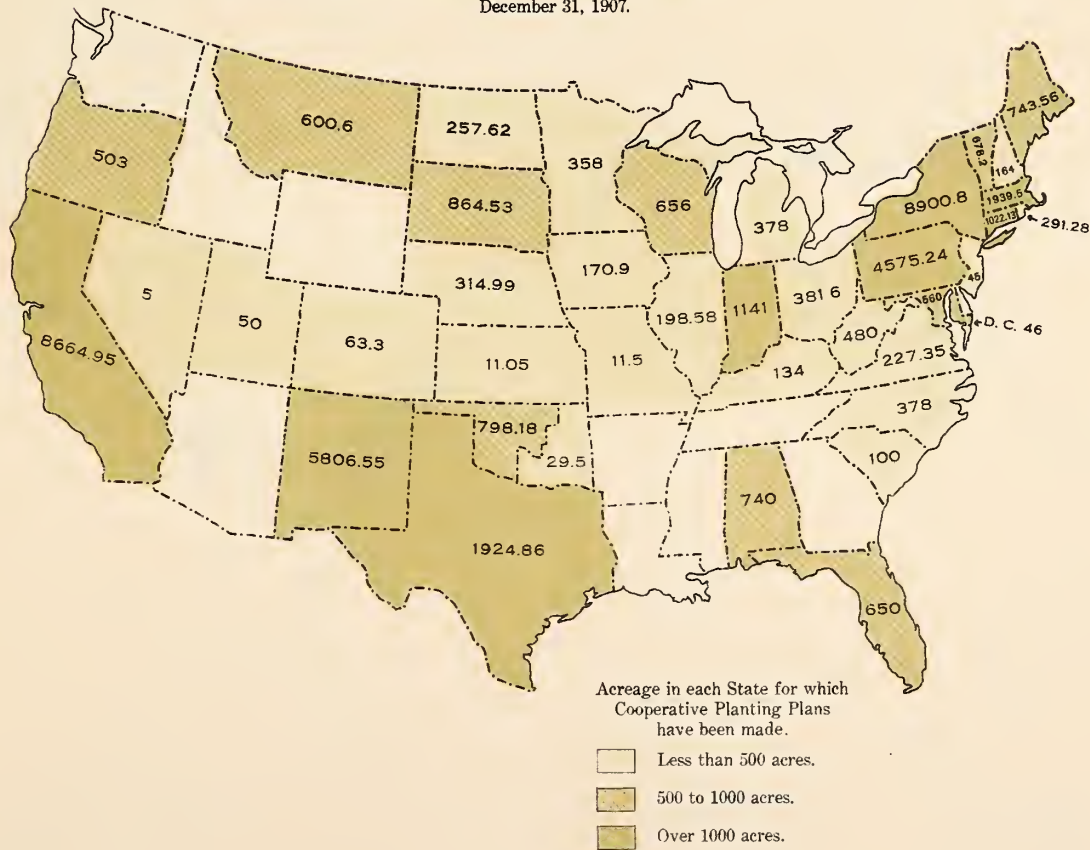


- Volume tables prepared.
- Diameter growth tables prepared.
- ⊙ Volume and diameter growth tables prepared.

PLANTING PLANS—BY STATES
December 31, 1907.



COOPERATIVE PLANTING PLANS.
December 31, 1907.



PRODUCTS

December 31, 1906.

PRODUCTION OF LATH.



- Under 25,000 thousand
- 25,000 to 50,000 thousand.
- 50,000 to 200,000 thousand.
- Over 200,000 thousand.

CONSUMPTION OF TANBARK.



- Under 10,000 cords.
- 10,000 to 40,000 cords.
- 40,000 to 100,000 cords.
- Over 100,000 cords.

PRODUCTION OF SHINGLES.



- Under 50,000 thousand
- 50,000 to 100,000 thousand.
- 100,000 to 500,000 thousand.
- Over 500,000 thousand.

CONSUMPTION OF TANNING EXTRACTS.



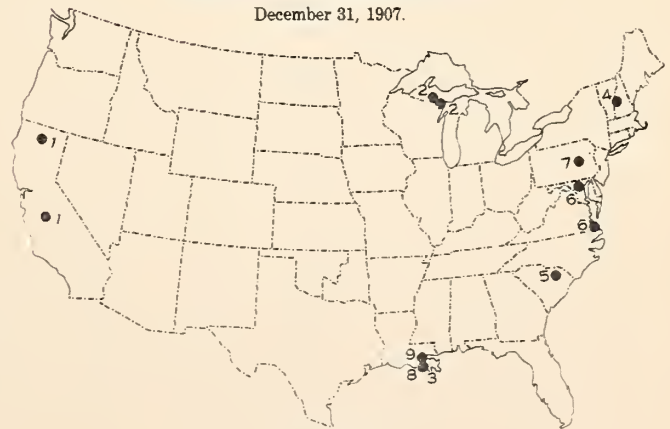
- Under 10,000 barrels.
- 10,000 to 40,000 barrels.
- 40,000 to 80,000 barrels.
- Over 300,000 barrels.

CONSUMPTION OF PULPWOOD



- Under 30,000 cords.
- 30,000 to 100,000 cords.
- 100,000 to 500,000 cords.
- Over 500,000 cords.

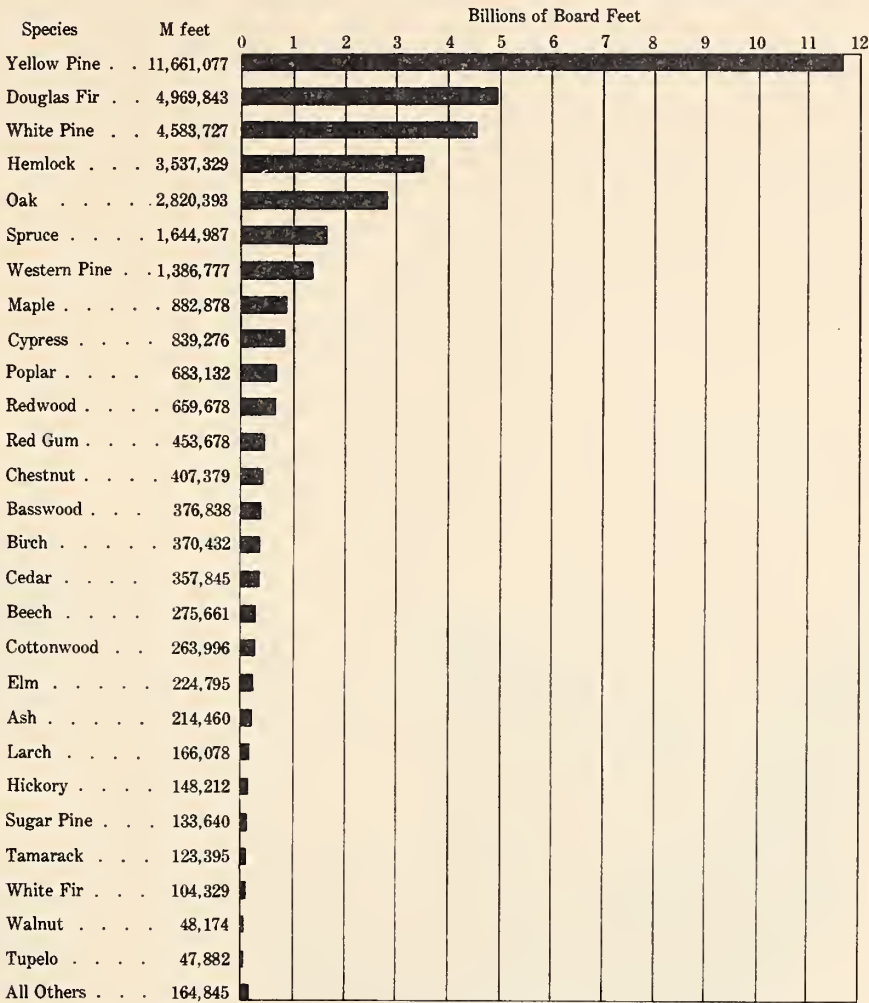
PULPWOOD INVESTIGATION TO
December 31, 1907.



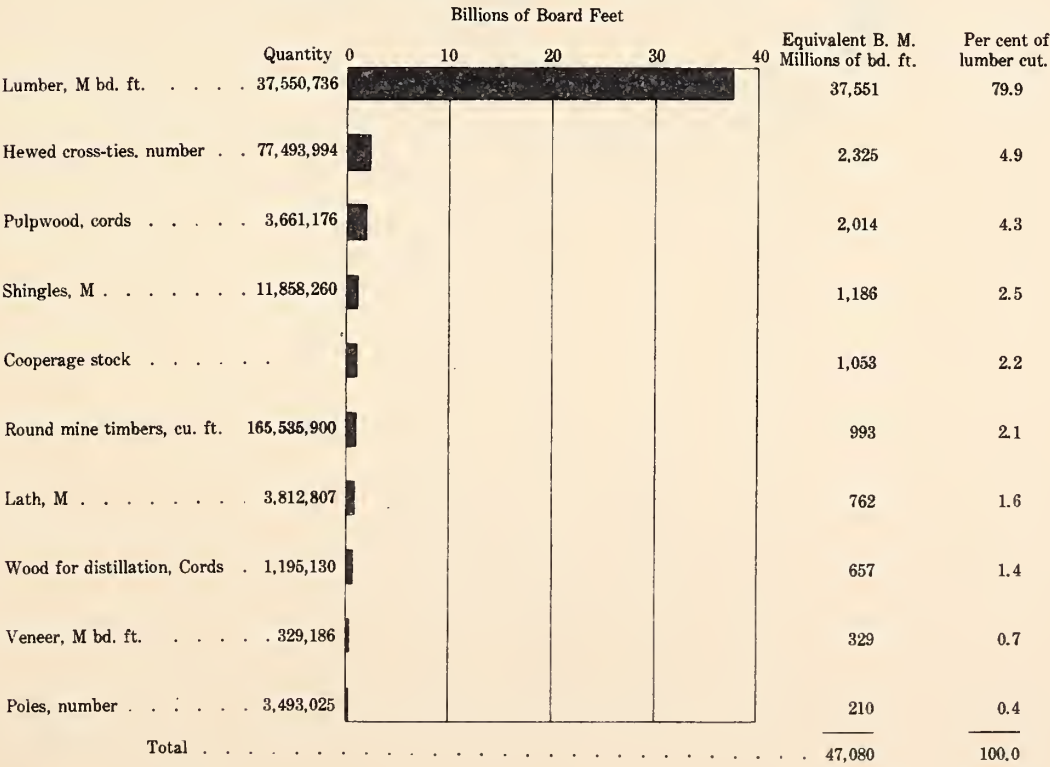
Species tested.

- | | |
|--------------------|--------------------------------|
| 1. Abies concolor. | 6. Pinus virginiana. |
| 2. Larix laricina. | 7. Tsuga canadensis. |
| 3. Nyssa aquatica. | 8. Taxodium distichum. |
| 4. Picea rubens. | 9. Taxodium distichum (Pechy). |
| 5. Pinus taeda. | |

LUMBER CUT OF THE UNITED STATES, BY SPECIES, 1906.



OUTPUT OF FOREST PRODUCTS IN 1906.



LUMBER CUT IN EACH STATE.
December 31, 1906.



COMPARISON OF STUMPAGE VALUES.

For the years 1899, 1904, and 1907.

SPECIES,	AVERAGE VALUE PER THOUSAND FEET.		
	1899,	1904,	1907.
White pine . .	\$3.66	\$4.62	\$8.09
Ash	3.03	3.95	7.58
Basswood . .	1.50	3.89	6.79
Hickory . .			6.69
Oak a	3.18	3.83	6.52
Spruce . . .	2.26	3.70	b 5.49
Chestnut . .	2.71	3.39	4.97
Elm	3.30	5.58	4.94
Poplar . . .	2.81	3.89	4.64
Cedar . . .	1.32	1.49	4.63
Hemlock . .	2.56	3.51	c 4.51
Birch			4.40
Cypress . . .	1.58	3.42	4.37
Cottonwood .	1.45	2.61	3.97
Beech			3.56
Yellow pine .	1.12	1.68	3.16
Maple	2.66	3.82	2.50
Red gum . .	1.68	1.67	2.46
Redwood . .	1.06	1.55	2.35
Western pine .			1.66
Douglas fir .	.77	1.05	1.44
Tupelo . . .			1.27

a. White oak only.
 b. Eastern spruce only.
 c. Eastern hemlock only.

